***Creation of OpenStack Private Cloud***

**Requirement –**

**RAM –** minimum **6GB** (8GB works fine)

**Hard disks -** 30GB+

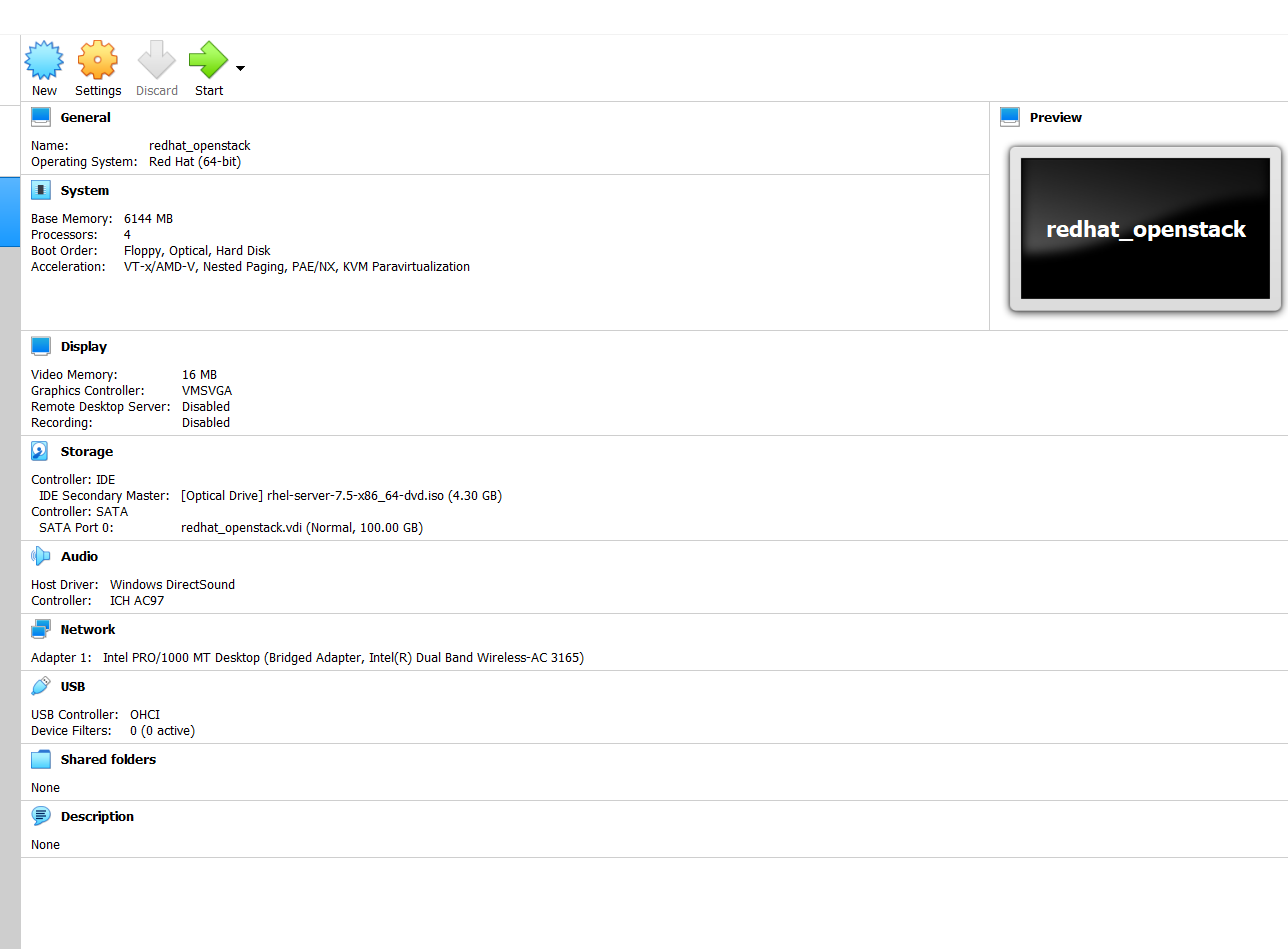
**CPU –** 4 works fine

**Network –** Bridge Adapter

**In Processor Extended Features –** Enable Nested VT-x/AMD-V

**Steps -**

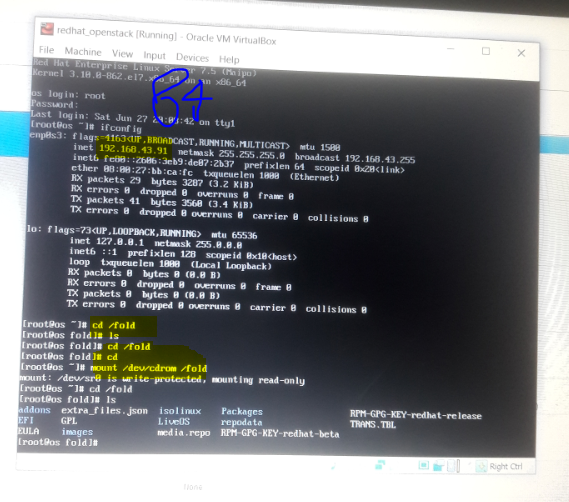
**Launch an Operating System** – Here , I Launched rhel7.5 OS on the top of Oracle VM Machine . I launched using Minimal Install means in cli mode because of faster computation .



After Login into OS –

Create a directory - # mkdir /fold

Mount disk in this dir - # mount /dev/cdrom /fold



Creation of Yum repository - # vi /etc/yum.repos.d/fold.repo

[dvd]

baseurl=file:///fold

gpgcheck=0

Install net-tools to know the IP of OS and vim cmd - # yum install net-tools vim

Make the IP static – static IP means Our IP does not change No matter how many times we restart the OS.There are many ways to make the static IP.

Here , To make the static IP we require four things

IPAddress , NetMask , Gateway , DNS name

1st goes to ifcfg-enp0s3 file - # vim ifcfg-enp0s3

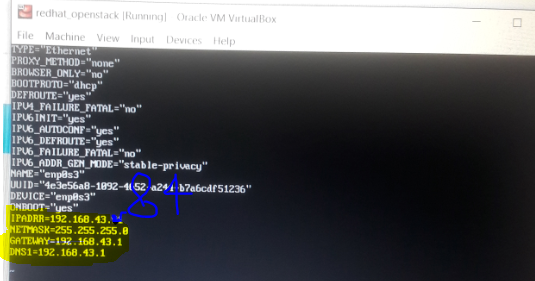
Insert at last

IPADDR=192.168.43.84

NETMASK=255.255.255.0

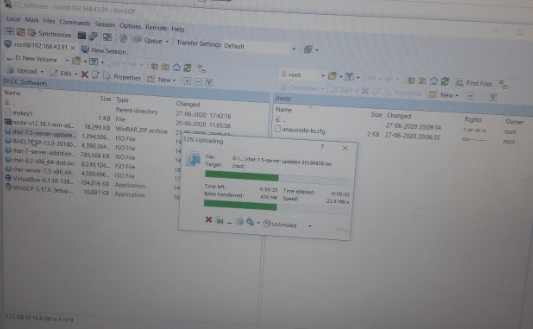
GATEWAY=192.168.43.1

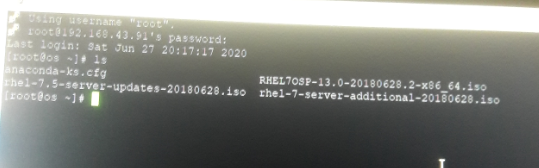
DNS1=192.168.43.1



Note:- It will be different in other Systems

Move ISO file from Base OS to RHELOS using winscp





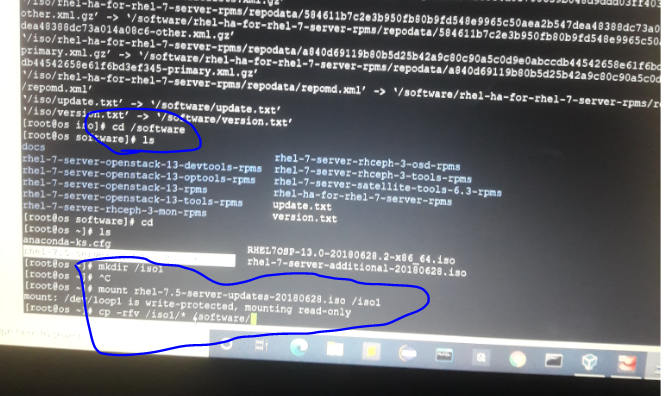
Make directory and mount each ISO files in different directory . Then Copy all the files in one directory ie.name Software .

# mkdir /iso

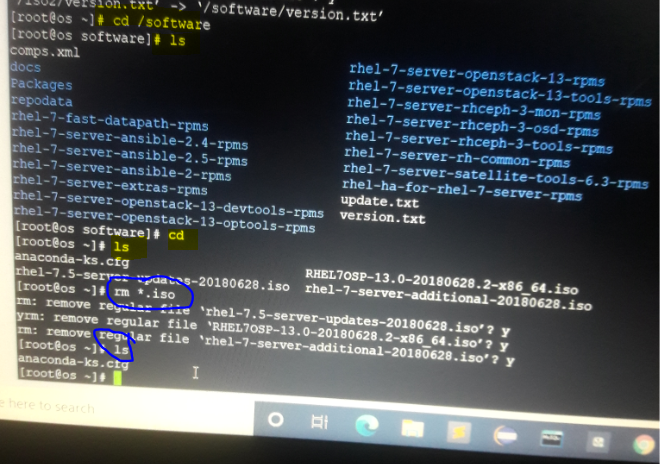
# mount iso\_name /iso

# mkdir /software

# cp –rfv /iso/\* /software/



Repeat this for all iso\_files



After that remove the iso files from root dir - # rm \*.iso

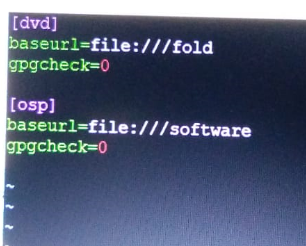
Edit the yum repo - # vim /etc/yum.repos.d/fold.repo

Add this –

[openstack]

baseurl=file:///software

gpgcheck=0



To store all the software in Database , known as Yum Database . We have to install createrepo and run it

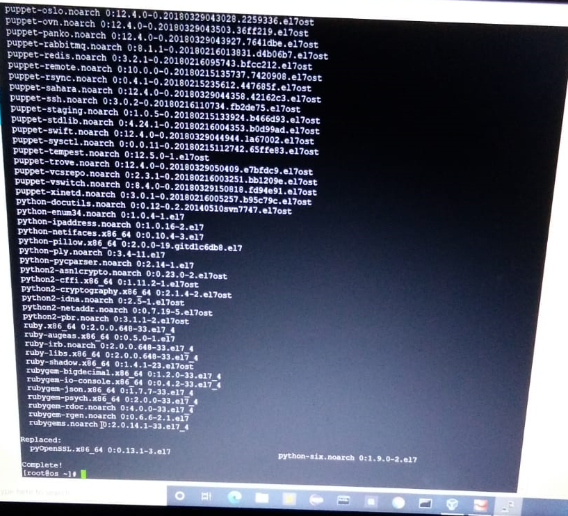
# yum install createrrepo

# createrepo –v

To clean some cache we have to run - # yum clean all (will delete some cache)

Then , we can download OpenStack-Packstack –

# yum install openstack-packstack



Then , We make the mounting of cdrom permanent – # vim /etc/rc.d/rc.local

mount /dev/cdrom /fold

# chmod +x /etc/rc.d/rc.local (To made the changes saved/permanent)

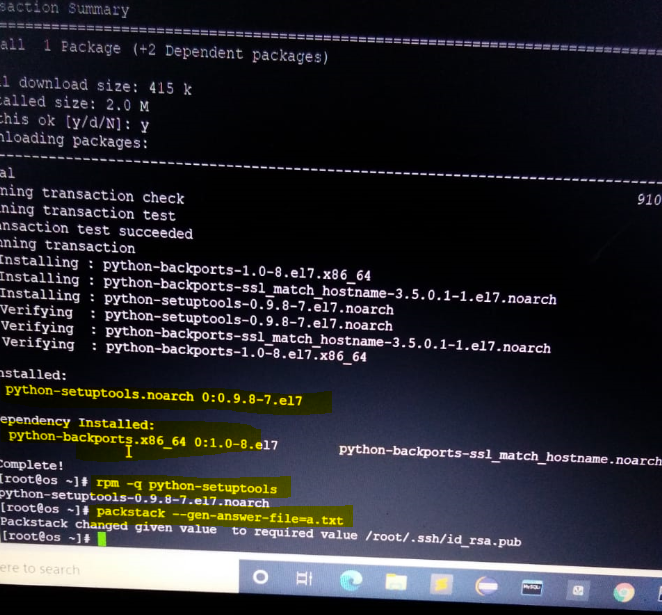
Since , Network Manager is not compatible with OpenStack , We have to disable it –

# yum stop NetworkManager

# yum disable NetworkManager

Afterward , We have to install python-setuptools –

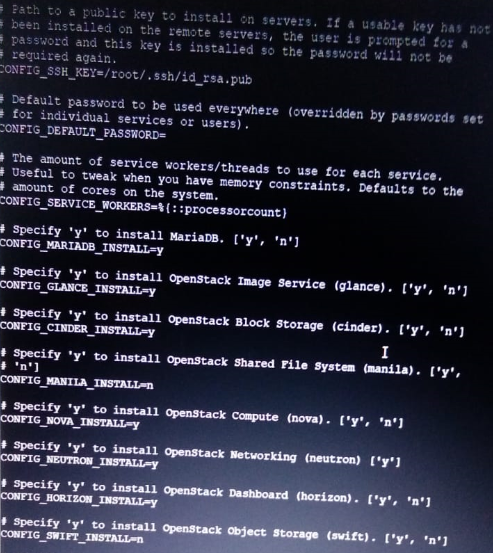
# yum install python-setuptools



Then , To generate the cloud we have to run this –

# packstack –gen-answer-file=a.txt

# vim a.txt

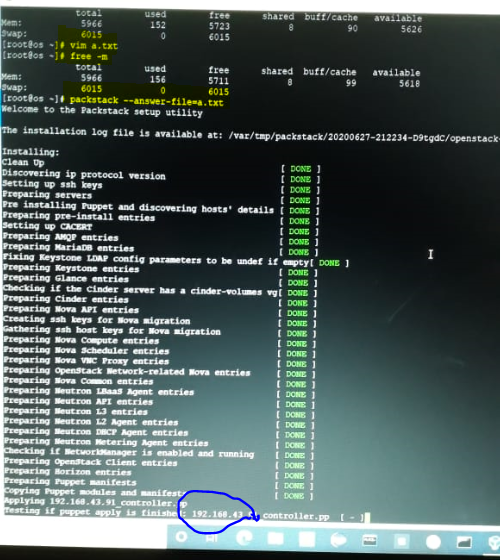


To clear the cache , to free some RAM –

# echo 3 > /proc/sys/vm/drop\_caches

Then , we Our cloud be developed after running this command

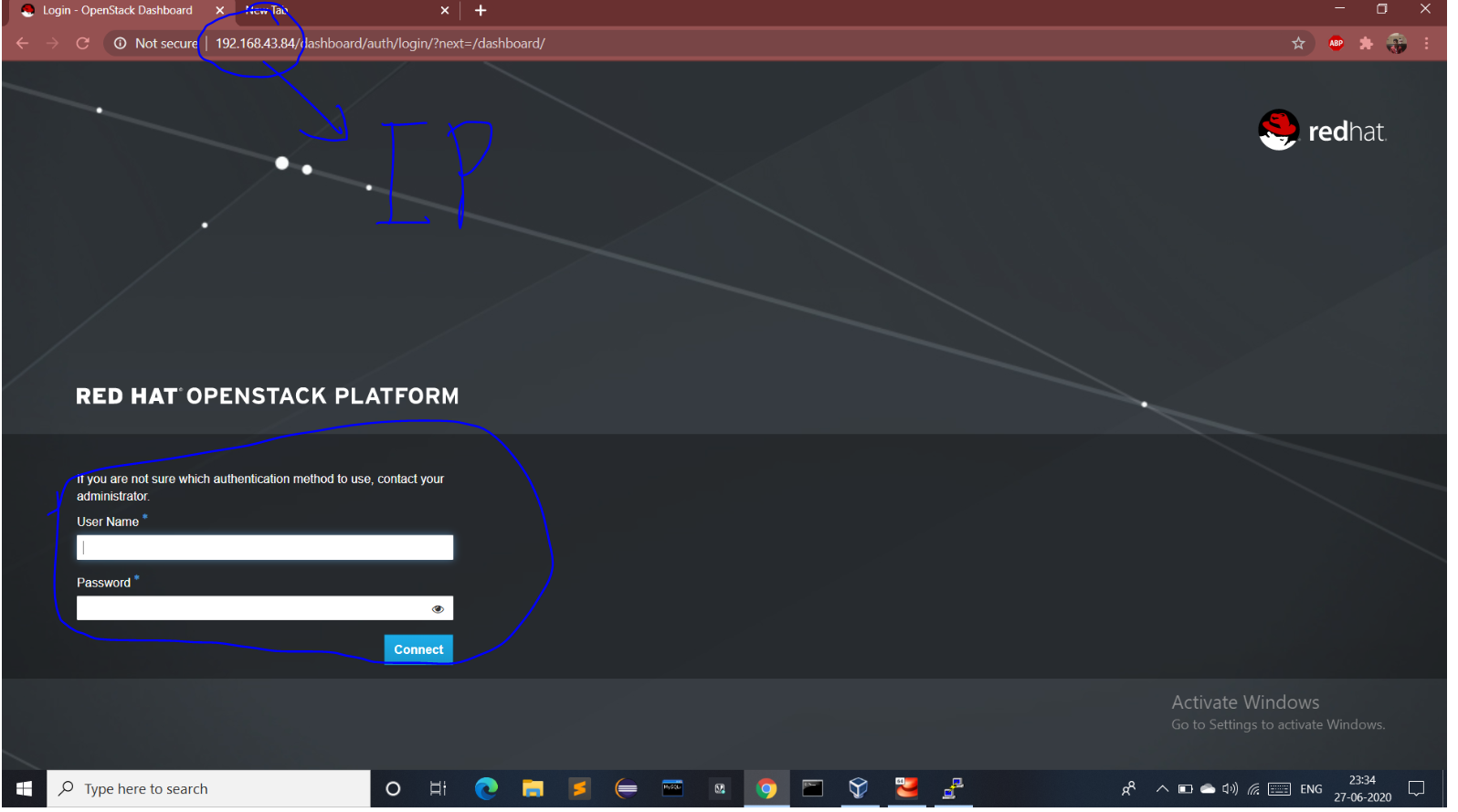
# packstack –answer-file=a.txt



It may takes approximately 30 – 60 minutes to execute . Then we can use our private cloud from Browsers using IP of the OS.

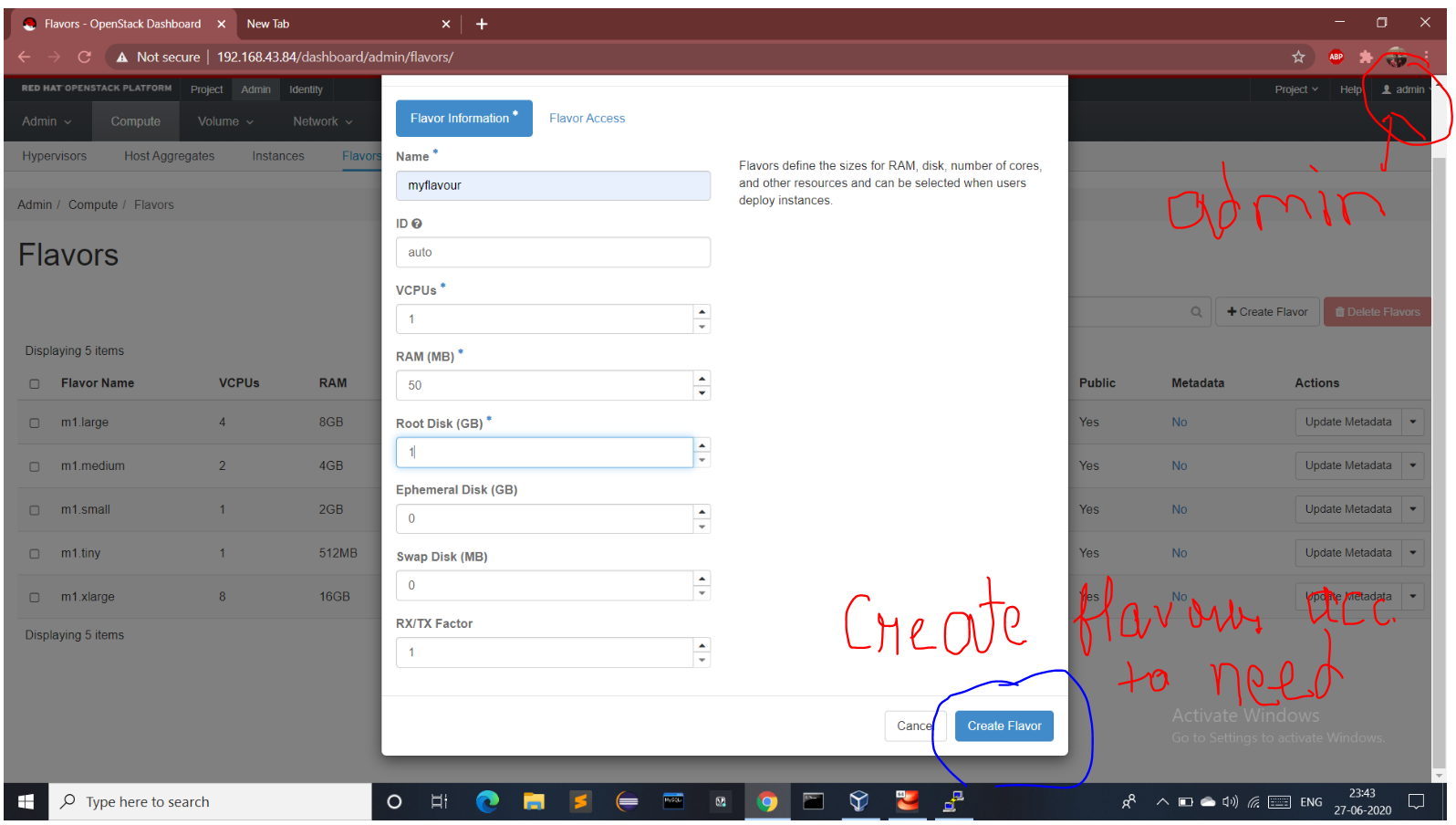
Here , we have to provide username and password . By default , packstack generate one username named demo as well as create password .

We can use that username and password to use our Private Cloud.

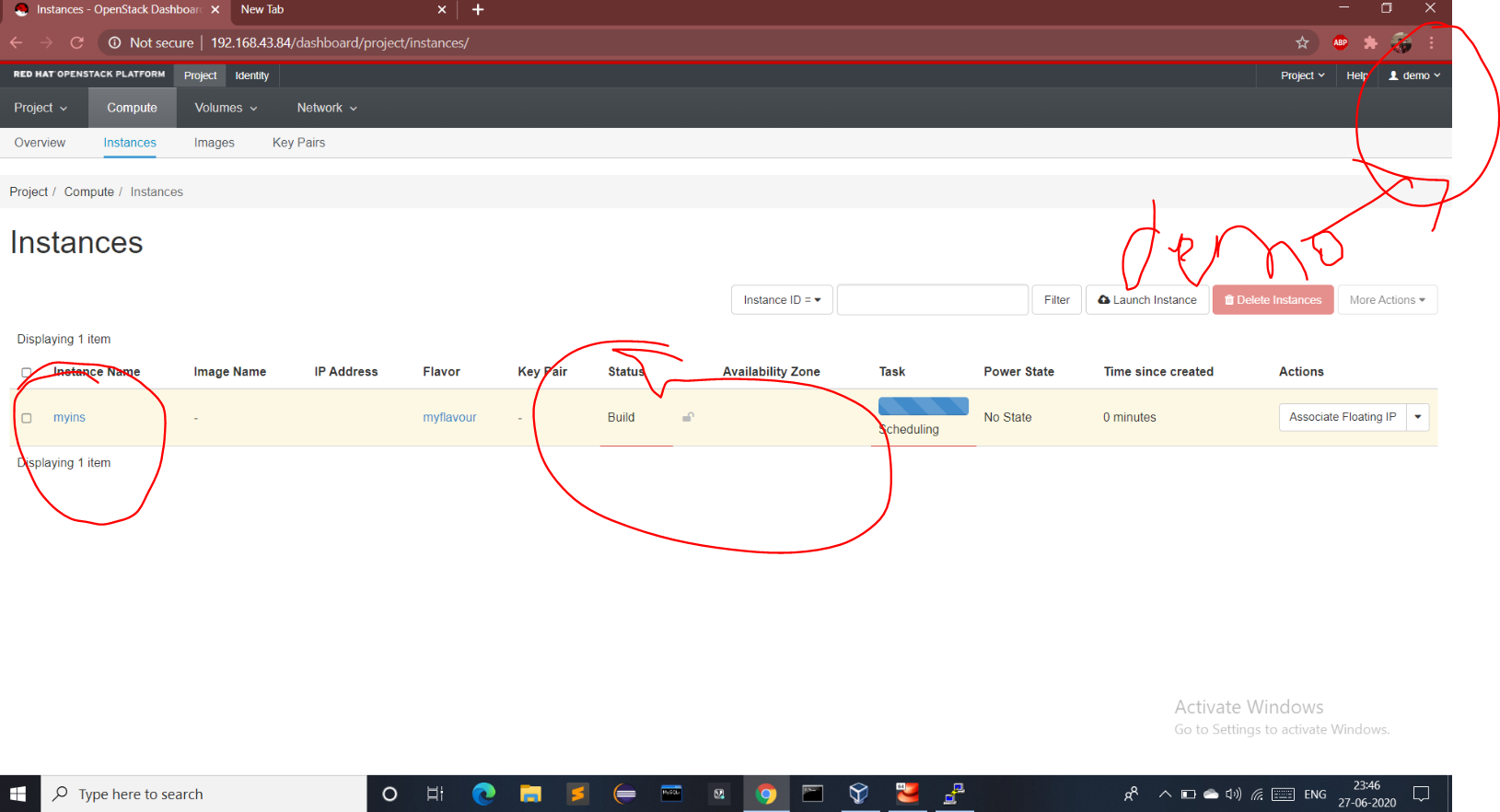




We can create flavour using Admin Account



We can launch Instances using demo user –



We can Also use cli to know anything whatever we can done using GUI

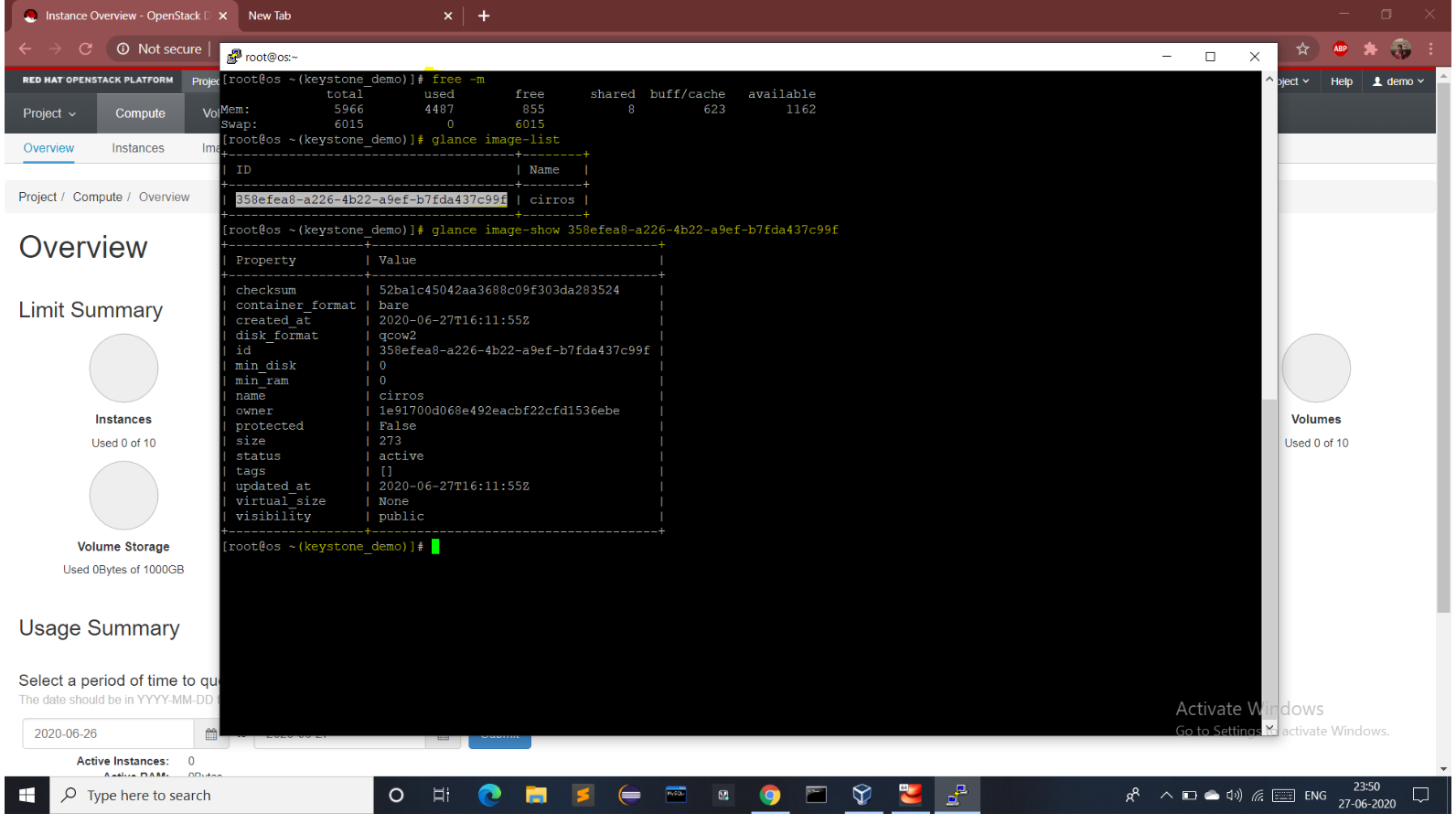
First , we need to Configure So we can login Then

# source keystonerc\_demo (Login as a demo user)

# glance image-list (shows number of images )

# nova list (shows no. of instances running)

# cinder list (shows all the volume)



Thank You Vimal Daga Sir .